CLAIM AMENDMENTS

1. (Previously Presented) A borehole caliper tool, comprising:

a tool body;

a proximity sensor;

a follower arm coupled to the tool body, the arm being deflectable relative to the tool body, the follower arm including a cam, having mass, coupled to reciprocate about a joint and facilitate a displacement of the mass away from the proximity sensor in response to rotation of the follower arm outwardly away from the tool body, with the proximity sensor being positioned to sense displacement of the mass and generate an output containing information concerning the deflection of the follower arm relative to the tool body.

2. (Previously Presented) The borehole caliper tool of claim 1, wherein a pivot joint is formed between the follower arm and the tool body.

3. (Original) The borehole caliper tool of claim 1, further comprising a bow spring coupled to the tool body.

4. (Previously Presented) The borehole caliper tool of claim 3, wherein a middle portion of the bow spring includes a pad for engagement with a surface of the borehole, with the pad being pivotally coupled to the cam.

5. (Previously Presented) The borehole caliper tool of claim 3, wherein the follower arm is coupled to the bow spring such that the follower arm deflects as the bow spring flexes.

6. (Previously Presented)The borehole caliper tool of claim 5, wherein a pivot joint is formed between the follower arm and the bow spring.

7. (Previously Presented)The borehole caliper tool of claim 6, wherein a sliding joint is formed between the follower arm and the bow spring.

8. (Original) The borehole caliper tool of claim 1, wherein the proximity sensor is a non-contact differential variable reluctance transducer.

9. ((Previously Presented) The borehole caliper tool of claim 1, which comprises an additional follower arm and an additional proximity sensor with said follower arm and said additional follower arm defining a plurality of follower arms and said proximity sensor and said additional proximity sensor defining a plurality of proximity sensors, with each of said plurality of follower arms being coupled to the tool body and having a cam and each of aid plurality of proximity sensors positioned to sense displacement of the cam associated with one of said plurality of follower arms.

10. (Previously Presented) The borehole caliper tool of claim 9, wherein the tool body has a diameter associated therewith with the plurality of arms and proximity sensors are distributed about a diameter of the tool body.

11. (Previously Presented) A borehole caliper tool, comprising:
a tool body;
a pad for engagement with a surface of the borehole;
a proximity sensor; and
a follower arm having a first end and a second end, the follower arm being coupled to the tool body at the first end to form a pivot joint defining a cam proximate thereto, with the second end being pivotally coupled to the pad, the cam having mass and being coupled to reciprocate about the pivot joint to facilitate a displacement of the mass with respect to the proximity sensor in response to contact of the pad with the surface, with the proximity sensor being positioned to sense the displacement of the mass and generate an output containing information concerning the deflection of the follower arm relative to the tool body.

12. (Previously Presented) The borehole caliper tool of claim 11, further comprising a bow spring coupled to the tool body and the pad.

13. (Previously Presented) The borehole caliper tool of claim 12, wherein the bow spring includes opposed ends coupled to the tool body, with the pad being coupled to the bow spring equidistant from the opposed ends.

14. (Original) The borehole caliper tool of claim 12, wherein the arm is coupled to the bow spring at the second end and adapted to move as the bow spring flexes.

15. Canceled

16. (Previously Presented) The borehole caliper tool of claim 15, wherein a sliding pivot joint is formed between the second end and the bow spring.

17. (Original) The borehole caliper tool of claim 11, wherein the proximity sensor is a non-contact differential variable reluctance transducer.

18. (Previously Presented) The borehole caliper tool of claim 11, which comprises an additional follower arm and an additional proximity sensor with said follower arm and said additional follower arm defining a plurality of follower arms and the proximity sensor and said additional proximity sensor defining a plurality of proximity sensors with each of the plurality of follower arms being coupled to the tool body and having a cam and each of the plurality of proximity sensors positioned to sense displacement of the cam associated with one of said plurality of follower arms.

19. (Previously Presented) The borehole caliper tool of claim 18, wherein the plurality of follower arms and proximity sensors are distributed about a diameter of the tool body.

20. (Original) The borehole caliper tool of claim 11, wherein the arm is rigid.

21. (Previously Presented) A method for gauging a diameter of a borehole having a longitudinal axis extending transversely to the diameter, the method comprising:

moving a tool body having a proximity sensor and an arm assembly along the longitudinal axis, the arm assembly comprising a follower arm reciprocally attached to the tool body to undergo rotational movement as the diameter of the borehole changes, the follower arm having a cam including mass; and

monitoring displacement of the mass from the proximity sensor as the tool body moves along the longitudinal axis to determine the magnitude of the bore diameter based upon a magnitude of said displacement, with the magnitude of the displacement being inversely related to the bore diameter.